

ating ribs begin posterior to the umbo, and extend slightly over the most prominent part of the shell. These ribs form sub-nodules where they cross the concentric wrinkles posterior to the prominent ridge, and give a crenate margin to the posterior curve of the shell. The anterior margin is also crenate, but has no radiating ribs. The umbones are prominent, rising above the hinge margin. Epidermis golden brown, with hair-like processes posteriorly. The inside is very smooth and shiny. Hinge and basal margins without crenations. Length 5 mm., breadth 3 mm., thickness 4 mm.

This shell was dredged in 70 fathoms off Lantana, Florida, by Thomas L. McGinty. It is somewhat smaller and less inflated than *Modiolaria lateralis* Say though the general appearance is quite similar. The anterior margin slopes back more sharply and the posterior margin is more produced, giving the shell more transverse length, proportionately. Also, radiating ribs are lacking anterior to the umbones.

A NEW FLORIDIAN LAMELLARIA

BY JEANNE SCHWENGEL

LAMELLARIA KOTO new species. Plate 1, figs. 3-6, 6a.

Shell naticoid, thin, transparent, with a slight milky cloudiness, covered with a delicate, membranous periostracum, which is smooth and highly iridescent. There are about $3\frac{1}{4}$ whorls, of which the first $1\frac{1}{4}$ may be counted nuclear. This nucleus is minute, flat and smooth, followed by abruptly larger, convex whorls. Suture deeply impressed. Aperture broad-ovate, about $\frac{3}{4}$ the size of the shell. Columella arcuate, thinly calloused, spirally gyrate, allowing a view to the apex from the base of the shell. Sculpture of very strong, uneven incremental wrinkles.

Height 16.4 mm., length 18 mm.

This Lamellaria was collected by Alfred S. Koto, for whom it is named. It was found on tide flats, near Braidenton Beach, Florida, clinging to eel grass, only accessible at the extremely low tides at the change of the moon. Great care had to be taken in collecting and in cleaning, as the shell is extremely fragile and is almost membranous at the lip. This collecting was done from January 11th to February 23rd, 1944, but after that date the

shells seemed to have entirely disappeared, though all the flats were carefully gone over, not a single specimen being found.

This new *Lamellaria* is similar in shape to *Marsenina globosa* Perry and *Lamellaria leucosphaera* Schwengel, but is slightly larger than either in all measurements, the body whorl much less globose and the aperture comparatively larger. Also the spire is higher, the sutures more deeply impressed, giving each whorl a more rounded appearance. The male animal (Figs. 4-6a) is milky white and the female (Fig. 3) a dull grey in the single alcoholic specimen of each examined.

ANNUAL FLUCTUATION OF ABUNDANCE OF SOME MARINE MOLLUSKS

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An observation within the common experience of students and collectors of mollusks is that of observing pronounced changes in the abundance of certain species in a particular locality from time to time. Molluscan populations fluctuate in numbers because of the interaction of a multitude of ecological factors. Many changes are difficult to detect because the number of samples required annually would be very large if valid conclusions are to be drawn. Some fluctuations, however, are noticeable upon ordinary observation or upon examination of a limited number of quantitative samples.

A number of investigators have reported changes in the abundance of certain marine mollusks observed over varying periods of time. Such information is usually fragmentary, is widely scattered in the literature, and often is mentioned in only a casual manner in reports devoted to other topics. Very few studies have been published on continuous observations of the size of particular molluscan populations over a period of years. Some information on the subject is to be found in the following references: Presbrey 1913; Allee 1919, 1923; Blegvad 1929; Caullery 1929; Hagmeier 1930; Orton and Lewis 1931; New-